

CURRICULUM

BASED ON

**Values in a Developing Country
with Special Reference
to India**

DR. R. M. KALRA

Students in developing countries are in the midst of a tremendous "values" crisis, seeking more of what western technology and culture can produce, some of these students push for the adoption of western ideas and practices. They are faced with a choice, either staying as they are or adopting the western value system in total and rejecting every thing they have known. This confusion and conflict results in literally tearing apart the culture of our children.

Does it have to either or choice ? Isn't it possible for children to amalgamate the best ideas from their own culture and the west's ?

Also, teachers to-day face an increasing number of curriculum decisions. An avalanche of knowledge in all academic areas, especially the sciences, have thundered upon man in the last twenty years.

How can teachers supply meaningful educational experiences for children in the light of this explosion of knowledge and values crisis ?

A promising approach for dealing with the emerging values crisis among our students is to teach them a process and a set of criteria by which they can arrive at and evaluate the soundness of their own values.

In order to impart purposeful and relevant education to our students with reference to values crisis and explosion in knowledge, the author suggests "Values as a Bases for Curriculum Development" in this book. The author makes an attempt to discuss the role of the school system in values questions, set of criteria for evaluating the soundness of values, value research and teacher's role in value judgement in this book.

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CURRICULUM

Based on Values in a
Developing Country With
Special Reference to India

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FOREWORD

Students and teachers in developing countries face a variety of problems some of which fall under the category of crisis. Problems arise largely because developing countries wish to achieve what the developed countries have already achieved. But they do not have either time or patience to do so. The constraints of economy also play a very vital role in enabling them to reach the targets. Viewed from the Indian point of view the problem is that on one hand we in this country would like to stress upon spiritual and moral attainments and on the other we are equally enamoured of the western achievement where progress is measured by per capita consumption of energy, consumer goods and the availability of speedy transport. It is a clear case of being dazzled by technological advancement.

Time was when most of us thought that values form part of social sciences only. We find now that even the area of pure science is not free from the crisis of value. For instance, what was normally regarded as "Value Free Research", be it in space or atomic energy, is now part of a political design and international pressure books. Involved in this are questions particularly for students and teachers of countries like India—what is the eventual goal of human life and of our society? What do we really wish to achieve in this life and whatever we achieve, how can we evaluate its value component? These questions become even more complicated when we think in terms of curriculum that has to be offered in the class-room. Who would finally decide what has to be taught? Is teacher's choice the decisive choice or a student can also participate in this decision making process and when he does so whether it is essential or even necessary for a teacher to listen?

In brief, the problems are not only of the mechanism of making a choice but also of the end-projects of having made a choice.

Dr. R.M. Kalra has a very pertinent study on the subject of Curriculum Development with a Focus on Values in a Developing Country. The problems he touches upon are both vital to our society and basically of universal appeal. One merely hopes that informal dialogue would be initiated on this important issue irrespective of the results. Curriculum framing in developing countries which have long traditions of education is largely governed by historical processes. A sudden change is never appreciated. Even so curricula develop progressively in a direction which is determined by society with the result that the values inherent in the nature of society also tend to get reflected. The teacher does make his own contributions but not always to the extent that one feels desirable. Lately even the students have started participating in this process but once again this contribution is of a very limited type. We hope in near future the democratic roots in curriculum framing would deepen and broaden in influence. Dr. Kalra should be congratulated for the work he has done.

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*Dedicated to my
Late Uncle (Dr. P.C. Mehta)
and
My teachers*

ACKNOWLEDGMENT

Needless to say, the author owes much to numerous educators who have taught him that to live is to learn to love.

The author acknowledges his indebtedness to Indian Publications Bureau, Ambala Cantt (Publisher) for their excellent co-operation and sincere interest in this book.

The author wishes to express sincere gratitude to his parents, wife, sisters and children for their encouragement and blessings in the completion of this book.

R. M. K.

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CHAPTER I

INTRODUCTION

Teachers today face an increasing number of curriculum decisions. An avalanche of knowledge in all academic areas, especially the sciences, has thundered upon man in the last twenty years.

How can teachers supply meaningful educational experiences for children in the light of this explosion in knowledge ?

Can teachers change the content of teaching in order to better meet the needs of their students, their communities, and their society ? That this is a difficult, if not an impossible task for teachers to accomplish, is abundantly clear.

Furthermore, recent educational innovations have overlooked human growth. Instead of using modern "jargon" (such as programmed instruction, differentiated staffing, individualized learning, learning modular system and behavioral objectives, at al) our emphasis should be on child growth and development, for human growth is directly related to a "values" concept.

Students in developing countries (such as India, Africa) are in the midst of a overwhelming "values" crisis. Seeking more of what western technology and culture can produce, some of the students push for the adoption of western ideas and practices. They are faced with a choice ; either staying as they are or adopting the western value system in total and rejecting everything they have known. This confusion and conflict results in literally tearing apart the cultures of the children.

Does it have to be either choice ?

Isn't it possible for children to amalgamate the best ideas from their own culture and the west's ?

Teachers must provide a learning environment which affords

both experiences desired by the child as well as a basis for the formal education goals of the schools.

How does one accomplish this task ?

A promising approach for dealing with the emerging values crisis among the students is the rejection of the idea of imposing "right" values upon them. *Instead we teach them a process and a set of criteria by which they can arrive at and evaluate the soundness of their own values.* This approach might give students a set of tools and skills for sorting out the alternatives which are available and the consequences which may result as they continue to live with a focus on their values.

VALUES ? What are they ?

Inevitably the following question springs to mind. What do we mean by values ?

According to the Oxford dictionary, this term means "worth", and valueless means worthless. From an historical view point, a value may be defined as a *thing* which is good. Operationally, the concept of values may be defined as "*factors which affect human behavior*".

Intellectually, value may be defined as a "concept which is accepted by the sub-conscious mind, is understood by all and perceived by the individual."

Values may be categorized as follows :

(1) **Essential values**—These involve the basic nature of man himself.

(2) **Personal values**—what is profitable and good for the individual.

(3) **Social values**—what is good for the society. It discusses the basis of the relationship of the individual with other people.

(4) **Cultural values** - which involves the survival of the culture.

(5) **Institutional values**—which includes the political values, the moral values and establishment values.

Another question arises : (i) Do the values themselves change ? (ii) Is it only our interpretation of constant values that change ?

One can assume I think, that abstract values such as tolerance, self-respect, love, truth and patriotism remain constant. However, world events may bring about changes in priorities. During the Vietnam War in the U. S., Draft dodging was considered by many as a sign of patriotism in comparison to going to war.

Furthermore, our rapidly changing society results in a constant reassessment of our values. Science, once regarded as wholly beneficial, has undergone a subtle value change in recent years. With its ramifications affecting the social educational and political issues of our time, science has acquired an un-savoury character igation. The fact that we have the teachnical know-how to destroy the world whether quickly through atomic war or slowly through pollution and environmental abuse does not improve science's image. Many confuse science and technology blaming on science the mis uses than man maker of technology.

Subtle changes in .technology can bring about world wide ramifications. Before 1960, both the Soviet Union and the United States had deployed only liquid fuel rockets with a minimum of four hours fuelling time. As there could never be enough warning time to launch these rockets before they were destroyed on the ground, each side felt that their opponents could use these weapons in a surprise attack. This situation increased international tension.

With the development of solid fuel rockets, having only a 32 second firing time this instability was reduced to a controllable level.

We have achieved the technical know-how of destroying the world, but have not developed human *values* which may control the above destruction. Thus we feel threatened.

However, there is a great danger in regarding science as a singular value system. If the weakness of various ethnic cultures is their resistance to scientific thinking, then there has been equal stubbornness on the part of western scientific culture to be over-committed to technology. The historical records of all great civilizations show that cultural idealism and technology must exist side by side.

The great engineering master pieces in all ethnic cultures testify that science and technology are thousands of years old.

What Westerners call the "industrial revolution" was in reality only an unprecedented acceleration and exceedingly strong emphasis on a particular aspect of human activity.

The rise of the great civilizations was not brought about by technology alone, but by radically new social inventions.

Evidently both our society and its values are rapidly changing. Modern youth questions the values of their parents. If we are to cope with these changing attitudes, it is imperative to discuss the importance of values in our school system.

THE ROLE OF THE SCHOOL SYSTEM IN VALUE QUESTIONS

To determine the importance of values in the school system, we must first examine present teaching methods and the school environment.

What actually happens in a school determines values rather than how students are taught. For example, when "democracy" is under discussion in a class, democracy must be evident in the actual management of the class and the operation of the school.

The concept of "human rights" being taught in a class room where there are no individual rights, reduces the credibility and the concept of "value question" to another educational fad.

The role of the teacher is at the center of our concern for values in the curriculum. Should they be taught by him and if

so whose value does he impose, his own ? or those from higher authority ?

To a large extent, values are acquired through example not precept. Values are personal and cannot be imposed on a child unless he understands them. A child should be given enough choices and be allowed to make his own decision. Different teachers may ask different value questions, but they should be cautious not to insist on the "right" answer for any value question. A teacher should make his personal views clear to the student but he should not impose his values on the student. In any event a good teacher will reflect values rather than impose them on a child.

Personal experience suggests that most students do not want to accumulate factual knowledge, but to work at something in which they are interested. It is quite obvious that the students' interest is aroused only when he perceives some thing of value in the subject or sees a practical application of the knowledge to be gained.

The school, then, is one of the most appropriate places where "value" concept can be fully expanded. A teacher must demonstrate those values in which he believes. In order to discuss the values question in the class, it is imperative to have a better understanding of human growth. Class rooms and schools should provide environments for our children to develop some of the following qualities.

- (i) Trusting (ii) Honesty (iii) Patience (iv) Flexibility
- (v) Understanding (vi) Self respect (vii) Respect for others

However the question now arises. Should the development of the above mentioned qualities be at the expense of the mastery of subject matter ?

Some educators feel that the school can provide value lessons, only at the expense of factual knowledge. Others feel that "value" questions should be incidental. In my opinion, it is quite difficult to polarize factual knowledge and human growth. It is not

an either/or question, but both processes should work hand in hand. We, as educators, should not lay emphasis on one aspect at the cost of another. Our schools have a responsibility to the community to foster community values i, e. to lead our children to understand and accept the values accepted by the society within which the school operates. Socially accepted value systems, may be developed through self discovery. This implies the designing of a curriculum which caters to the needs of the community and overcomes the conventional gap between school knowledge and life situations. Thus, the philosophy of any school program may be based on a new system of education that will enable high school students to develop skills, acquire knowledge which will enhance their life, and lead them to the discovery of knowledge. So, the primary aim of schooling is to serve the future i, e, to provide the students with knowledge which is related to their lives, knowledge which they can use. Some factors which hinder exploration of "values" in the school system are;

- (i) Examination and evaluation systems which involve only mastery of content or some skills.
- (ii) Administration problems which need a more democratic set up.
- (iii) Improper teacher training (Pre-service and In-service).
- (iv) Double standards held by educators ; what we say and what we do.
- (v) The value opportunities which are in conflict with economic values.
- (vi) Lack of opportunities provided to students for analyzing a variety of experiences.

VALUES IN CURRICULUM DEVELOPMENT

In curriculum development the term "value" refers to the things which are of the highest worth in education. These values differ from one person to another. If one wishes to produce a list of values for the curriculum, he might include knowledge in

various forms, application of knowledge in daily life, and qualities, such as the development of confidence in a child.

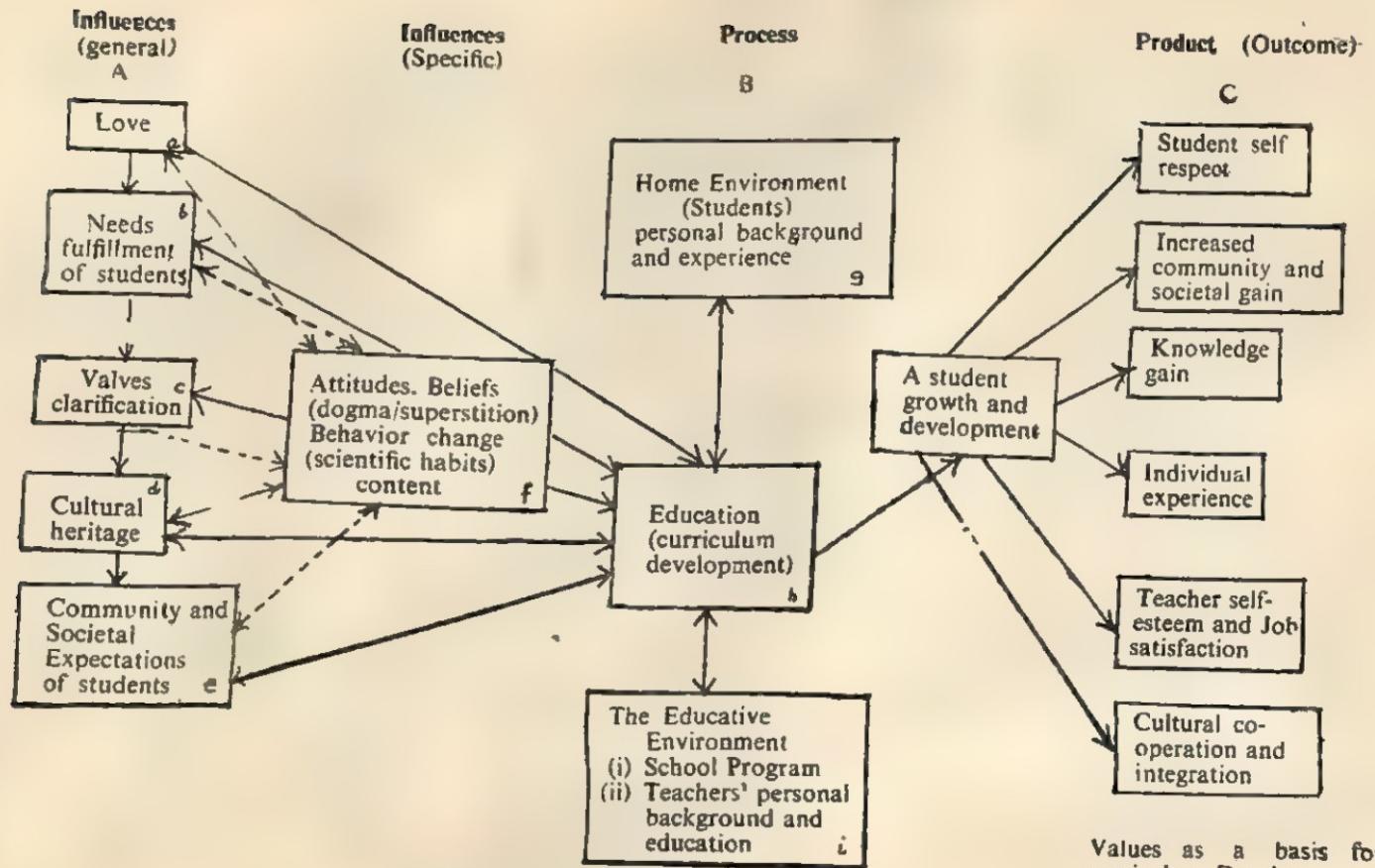
If some body else is asked to produce the same list, it is unlikely that it will be the same. He may not give the same importance to the same values. He may believe that the main aim of schooling is to acquire knowledge of facts for future use. A third person may attach importance to values which may be entirely different. For him, education is not a preparation for life, it is continuation of pupil growth, this implies that curriculum is not only acquisition of knowledge but that it also lays emphasis on activity and experience.

To summarize, Educator A may believe that the major function of schooling is an acquisition of "practical" and "ethical values". Educator B may visualize that the function of school is to impart knowledge. Educator C may place high value on allowing a child to make decisions in the planning and initiation of his course of action.

The above discussion points out the differences between educators but one also has to take into consideration major differences between one child and another and between one social class and another. Thus, values differ from area to area, from social class to social class. In other words a curriculum's values in a predominantly rural area are not likely to be similar to those in an urban area.)

It seems to me that curriculum consists of several strands or sets of values. The first strand may include basic skills such as reading, writing and arithmetic. The second may be the course content. The third, may be the ability to evaluate, generalize and locate problems (application of knowledge in daily life). The fourth is the development of the creative powers of a child and the fifth is the development of ethical and cultural values.

The total system of values is exemplified in the schematic representation No. 1.



SCHEMATIC REPRESENTATION NO. 1

Values as a basis for
curriculum Development

In order to illustrate the proposed model i. e. Values As A Basis For Curriculum Development (Refer to Schematic representation no. I), it is imperative to make the following assumptions.

(i) The purpose of curriculum development is pupil growth and development.

(ii) The above growth may result from deliberate planning or random outcome.

(iii) Pupil growth should include physical, mental and emotional development.

(iv) Piagets' concept of pupil growth points out that the *stages of growth* are the same for all pupils but the age at which each stage is reached varies widely depending on interaction between heridity and environment. This interaction leads to the concept of "values".

(v) Pupil growth is an outcome of learning which may include the process of certain skills and knowledge.

(vi) Learning experience may fulfill human needs.

(vii) The/Teachers' role in the growth of pupils is to provide a conducive environment which may help them in becoming "functionally literate persons" and provide leadership to the community in order to improve their daily lives.

(viii) The/Teacher's rôle is to indentify skills and knowledge which are necessary for a functionally literate person.

(ix) Teachers can make some inventory for their pupils in order to identify the amount and the character of pupil growth and development.

Walter H. Worths' inventory of pupil growth in general may be helpful, if teachers want to examine pupil growth.

CLASSIFICATION THE LIST (Criterias for examining pupil growth)		SOME QUESTIONS to be used for examining pupil growth and development
General	—Personal autonomy (a) Selfhood (b) Individual freedom (c) Independent attitude	Does the child give any evidence of the personal autonomy as mentioned in the adjacent column ?
Growth Objects	—Social Adjustment (a) Helping others (b) Sharing responsibility (c) Active participation in group discussion (d) Application of knowledge in daily life (e) Sharing with others (f) Group dynamics (g) Patience (h) Manipulation (i) Visual and auditory discrimination (j) Transformation of an abstraction into a concrete	Does the child give any evidence of the social adjustment as mentioned in the adjacent column ?
	—Ethical value (a) personal value (b) social conscience (c) cultural values	Does the child provide any evidence of creative capacity in developing the values mentioned in the adjacent column ?

CLASSIFICATION THE LIST
 (Criteria for
 examining pupil
 growth)

SOME QUESTIONS
 to be used for
 examining pupil
 growth and
 development

—Creativity

- (a) Innovation
- (b) Discovery approach
- (c) Developing leisure and recreational skills

Does the child provide any evidence of creative capacity in the behaviour mentioned in the adjacent column ?

—Intellectual Capacity

- (a) Maximum use of all his senses
- (b) Development of spirit of inquiry
- (c) Skills of communication
- (d) General and specific knowledge

Does the child give any evidence of developing the intellectual capacities mentioned in the adjacent column ?

BRIEF DISCUSSION OF THE PROPOSED MODEL

Relating to the basic assumptions of the proposed model, that all learning experiences should fulfill human needs, the logical assumption is therefore the curriculum can be structured around the focus of love. To do this, one assumes that :

- (i) Behaviour is acquired through experience, therefore the curriculum should provide for predetermined learnings.
- (ii) Learning should be based on the fulfillment of student needs.
- (iii) Learning should be based upon needs valued by the learner.
- (iv) To develop value Judgements, the structural organization should provide opportunities to make them behaviourally.

1. Water H. worth. *Report of the Commission on Educational Planning. A Choice of Futures*, (Edmonton : Queen's Printer, 1972).

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(5) The curriculum must be based upon an adequate theory of learning.

Thus in the curriculum the following qualities should be included that are basic elements of the perceptual field for learning.

- (a) Self Experience
- (b) Needs
- (c) Values (cultural, social, practical and ethical)
- (d) Attitudes
- (e) Community and societal expectations of students

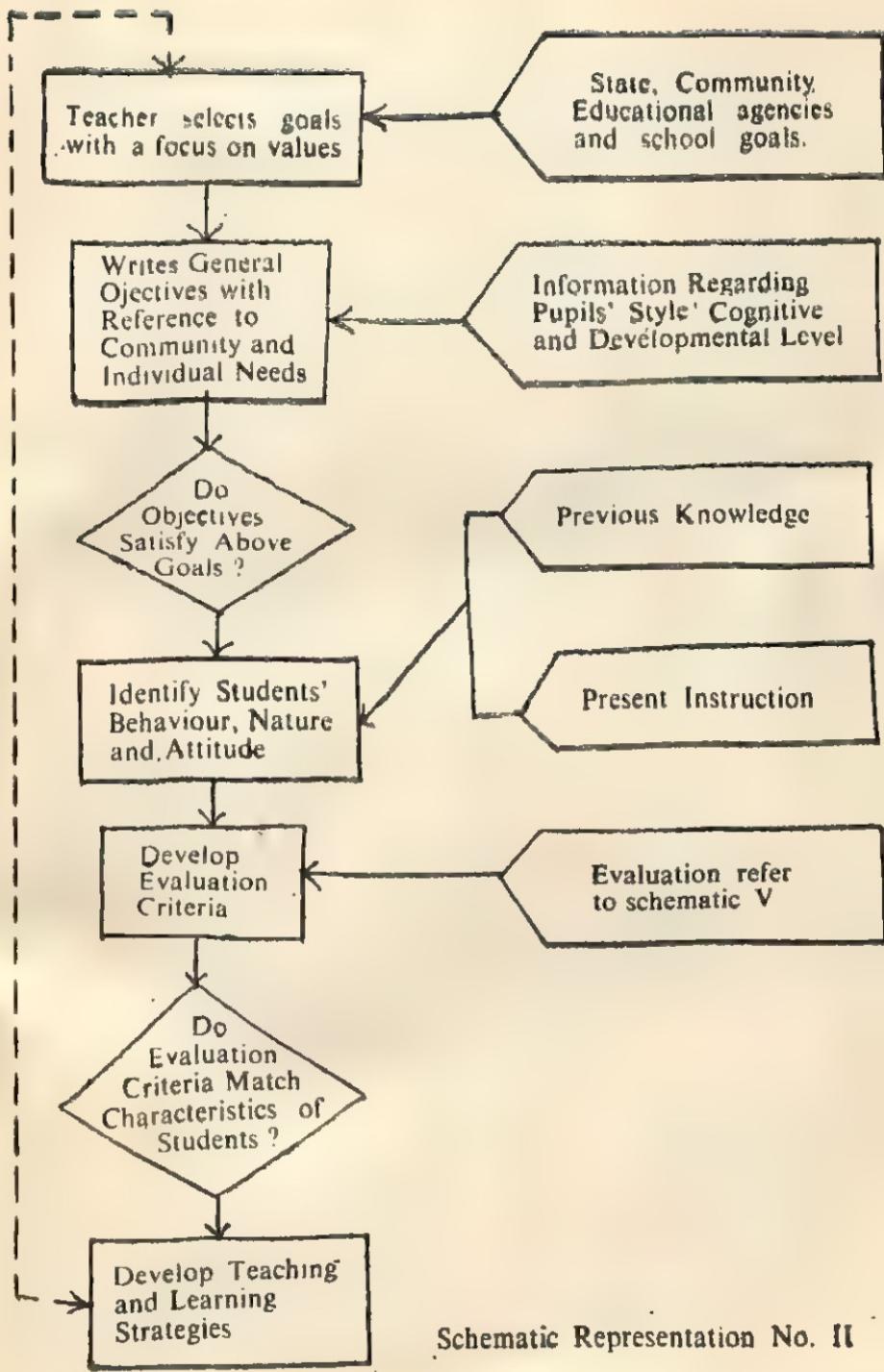
I believe that the development of curriculum must include aspects of cultural heritage so as to develop pride among pupils in their rich heritage. Students may develop an interest in learning to understand the world in which they live through an understanding of the subject matter. This can be achieved by correlating the subject matter with the heritage of the students.

All these general and specific influences provide bases for a curriculum which should account for the total learning for the whole person.

A CLOSER LOOK AT THE TEACHER'S ROLE

However, in order to implement the above model in curriculum development, programme development should be a responsibility of the teachers at all levels-state, district and classroom. Although teachers in most developing countries want and need all the help and advice they can get from various education agencies (for example in India-National Council of Educational Research and Training and Department of Education) the ultimate responsibility should be theirs. The following schematic representation (No II) summarizes the role which the teacher should play in the development and evaluation of the programme.

Note that, in the schematic diagram, the operator in the series of steps is the teacher, with assistance coming from educational agencies, the community and other sources.



Schematic Representation No. II

The process direction in schematic II moves from the general goal structure, based upon inputs from all levels, towards specific, short increment teaching strategies. The process takes into account all available information regarding the students, individually and collectively. The process can recycle at any point i.e., information resulting from evaluation attempts can become an input into recasting the evaluative criteria. Most important of all, in the process the teacher is the only agent close enough to the active level to maintain the close tie between the development of specific teaching strategies required if the process is to work optimally.

No intent to minimize the role of external agencies is involved; rather the intent is to make more effective the translation of all inputs, both external and internal, into realistic teaching strategies and evaluative devices. Evaluation methods should be determined by the goal structure and should reflect and at the same time influence the teaching process. In the absence of this relationship, evaluation becomes the goal, de facto, and teaching follows the path of least resistance.

CHAPTER II

PROCESSES USED FOR

ASSESSING VALUES

As pointed out earlier, values are acquired by example and these values are transmitted by what we do, not by what we say we should do. If we are to develop a process for assessing values, we must understand the backgrounds and environment of our students. We need to provide them with opportunities to test their values. Errors in judgement may be discussed, but the teacher must be prepared to accept the values the students derive from the situation. However, teachers should be taught how to use various strategies for assessing values.

The following methods (or strategies) may be helpful in the evaluation of values.

A. Problem Solving

The problem solving method includes assessment of values. The following steps comprise this process.

- (a) Selection of a definite problem
- (b) Discussion of possible solutions to the problem
- (c) Collection of pertinent data on each possible solution
- (d) Careful examination of each possible solution
- (e) An open-minded and unbiased discussion
- (f) Selection of the best possible solution after establishing the criteria to be used for making a decision.

The above criteria involve "values questions" and also include mastery of factual knowledge.

The following criteria may be used in order to implement the above process.

(i) Choosing a Problem

- (a) freely

- (b) from a variety of experiences
- (c) consideration of the outcome of each experience

(ii) Prizing

- (a) satisfied with the choice
- (b) willing to discuss the problem freely

(iii) Action

- (a) doing something with the choice
- (b) acting in some pattern in life

B. Scientific Method In Value Questions

To apply the scientific method in determining values, the students should demonstrate the development of scientific habits and attitudes. The development of scientific habits in the students can be identified by the following characteristics.

- (a) Reliance on facts
- (b) The power of observation, interpretation and inference
- (c) The ability to locate and define problems

The development of scientific attitude could be demonstrated as the ability to do the following.

1. To observe and discuss facts objectively
2. To be open minded and not to be superstitious
3. To review and revise one's opinion if the evidence demands
4. To think inductively

Success in developing scientific attitudes and habits depends mainly upon the teacher, and it is important that he always keeps in mind that students develop attitudes from examples rather than from abstract percepts : Students have certain values ; beliefs in superstitions, diet, astrology, self doctoring and the like that should be dealt with when pupils reveal them.

It should be stressed to students that the scientific method is applicable in other school subjects and in the enhancement of their community and home life.

An important aim of teaching in high schools is to make the students active and alert citizens whose contributions improve the community life. To achieve this aim, the curriculum should have practical applications to daily life. The teaching of chemistry can be related to the problems of pollution, drugs, purification of water and other problems relating to the daily lives of the students.

The relationship of scientific instruction to the school's attempt to help every individual in this regard is admirably stated by Brunson and Dowling.

A responsibility of the school is to help every individual to lead a worth while life. Those situations which can be better met by an understanding of the basic concept of science become parts of science instruction. Physical and mental health which are affected by sleep rest, fatigue, diet, exercise, posture, and drugs can be assumed for the pupil. Self assurance, which comes from a sense of achievement and understanding of normal variability, is necessary to the best adjustment and can be built by the study of chemistry. Through an understanding of organic and inorganic changes, the pupil aims appreciations which help him to see himself in his proper place with relation to the world about him. By constant practise in recognizing problems, seeking evidence to be weighed and arriving at the conclusions, the scientific method becomes a basis for action with the pupil. Science can help present certain fundamental principles which should be understood through partaking in and preparing for himself.¹

1. Brunson and Dowling, *Suggestions For The Teaching of Science in Twelve Year Program.* (South Carolina : Dept of Education publication , 1964, p. 47)

It should be the goal of a curriculum to implement the above ideas.

To accomplish this, science must be taught on three levels, the facts level, the concept level and the values level. For example in teaching a unit on water in science, the teacher might pose the following questions:

WATER

Level I (facts)

1. In how many physical states does water exist ?
2. What are the common sources of water ?
3. What are the methods of making water potable ?
4. What are common solvents ?
5. What is the chemical composition of water ?

Level II (concepts)

1. Demonstrate via certain lab experiments the various methods employed in purifying water.
2. How do you know water is pure ?
3. What are the effects of drinking impure water ?
4. Demonstrate via lab experiments the chemical composition of water.

Level III (values)

1. Why is water important to you ?
2. What would you do without water ?
3. Is the drinking water in your community fit for consumption ?
4. If not, make a list of things you could do in your village to improve the quality of drinking water.
5. What action if any, are you going to take along these lines ?

Notice the emphasis on the "you" in each of the above values questions (level III). Although questions in level I and II may

recognize application in today's world, they do not become level III questions until they are directly related to the students' daily lives, environments and attitudes.

C. Working Towards Values (Some Practical Strategies For Students)

Sometimes in everyone's life they ask the question "What am I doing here?" No one knows the answer, people just make guesses. Different religions give different answers but a person must decide for himself. Unless a person's life has meaning for him, he won't have peace of mind. For life to have meaning a person must have a set of values. By assigning values to behaviors and having goals, a person can find a direction for his life.

Making value judgements is not an easy thing to do, especially for young adults. The blame is sometimes put on the schools for not teaching the students enough about life and themselves for them to be able to make these judgements. The following exercises are oriented toward these purposes. These strategies do not teach values, they merely give the student a guideline as to how to go about making value judgements.

These exercises are designed to teach the student what to consider when making a choice, to feel confident with a choice, and to know how and when to act upon a choice.

1. My Favorite Activities (Strategy No. 1)

This strategy aids the person in examining his favorite activities. By thinking about what he likes to do he will get a better idea of what he wants from life. Once you decide upon a goal, half the battle is won.

Write down fifteen things you like to do. They don't have to be important things, just anything you really enjoy doing. After you have your list, think about what is involved in each activity. If it costs more than three rupees or pounds or a dollar put an appropriate sign beside it. Put the letter B beside the items you like to do by yourself. Put the letter F beside those

activities you would rather do with your friends and B.F. beside those you like to do either by yourself or with friends. If the activity needs planning or organization put P.L. beside it. Now rate your choices in the order you like them best. Examine your list. How do you think it might change in the future? Compare your list to someone else, try to explain the reasons for the activities on your list.

2. Discouraging Apathy (Strategy No. 2)

This exercise will help you to develop a stronger and clearer point of view.

Write down an important issue like Middle East, Vietnam, Watergate, Poverty, Abortion and with a few words describe your view beside it. Now ask yourself these questions.

1. Are you confident of your position ?
2. Have you told anyone about how you stand on this issue?
3. Did you consider several alternatives in making your decisions ?
4. Did you think carefully about the pros and cons and what consequences might arise ?
5. Did you take your stand out of free choice ?
6. Have you done anything about how you feel ?
7. Do you feel the same way about this issue every time it is mentioned ?

Now discuss with another person how you actually did come to your position on this issue. Which questions did answer NO ?

Try another issue and see if your view is formed in a more orderly fashion. Is your position stronger or weaker ?

3. How Do Your Values Compare? (Strategy No. 3)

This strategy gives everyone a chance to see how everyone else values things. It also shows a person where he stands in relation to other people's positions.

Make up a list of questions you feel are important or use one provided. Have someone read the questions and then vote on your answer. If your answer is yes put up your hand. If it is no, don't raise your hand. People who are undecided can cross their arms and those who do not wish to vote may pass.

Some questions you might use :

1. Do you think teachers should give homework ?
 2. Do you think cheating is justified in some situations ?
 3. Do you think giving grades is a good way to assess one's efforts in class ?
 4. Do you think schools are exciting places for students ?
 5. Do you think schools curriculums are designed for the benefit of most students ?
 6. Do you think schools prepare you enough for life after graduation ?
- 4. Rating Values (Strategy No. 4)**

This exercise deals with making decisions of different degrees. It's harder to make a choice if you have three or four answers to choose from. Ranking these choices from best liked to least teaches the student to compare the advantages and disadvantages of an alternative before deciding. This activity also gives the person practice in publicly stating his views and defending them, if necessary.

Think carefully about each question and state aloud the three choices in the order you would rate them. You may pass if you wish. Listen to the other people's answers. Afterwards discuss your choices and explain how and why you made them.

Some questions to think about :

1. How do you learn more ?
 - through lectures
 - through your own study
 - through discussion groups

2. Which do you think is the least important today ?

- poverty
- military
- pollution

3. What is more important in a friendship ?
 - sincere
 - honest
 - kind
4. Who do you think has it easiest ?
 - an only child
 - the youngest child
 - the oldest child
5. Which do you think is worse ?
 - to be very poor
 - to be very sickly
 - to be disfigured
6. What would you look for in a marriage partner ?
 - intelligence
 - personality
 - sex appeal
7. If you worry about a mark on a test what do you think about ?
 - yourself
 - your parents
 - pleasing the teacher
 - getting into college
8. What is more important to you ?
 - to work hard for the future
 - to love others
 - to really know yourself

5. Where Do You Stand ? (Strategy No. 5)

This strategy is oriented to the strength of your feelings on certain values. It involves weighing alternatives in complex situations and including the possible consequences.

Have a ladder of series of steps drawn in chalk on the floor. The teacher reads a situation and you stand on the step which best shows the strength of your feelings pro or con on that subject. As each student places themselves on the ladder you get a better idea of how you stand in relation to other people's views. Discuss with the person a few steps away why he is more or less concerned about the subject than yourself. Another way is to have five or six different students and rate each one according to the strength of his feelings.

A sample situation :

A Religious man gives regular contributions to his church. He adds to this, the money he saves by cheating on his income tax.

6. In-Between Issues (Strategy No. 6)

Answers are not always black or white. You might have feelings somewhere in the middle. This exercise gives you a chance to see where you are when you are undecided.

An issue is presented to the class. Written on the board are the two extremes of the issue. Think about where you stand. When you are called upon, briefly state your views (not reasons) on the issue and where you would put yourself on the line. Listen to the other people and see where they are on the line. Later a discussion may follow where you give reasons for your position. Did you end up in the middle or near one of the extremes? Where did the others end up? Do you think you have average views on this subject or is it very important to you?

Some questions to think about :

- How much freedom do you have ?

I have no say complete
in my life 1 2 3 4 5 6 7 freedom

- How much do you like your school ?

Want to blow love school—
up school 1 2 3 4 5 6 7 8 9 10 never want to leave

3. How do you feel about your relationship with your teachers?

1 2 3 4 5 6 7 8 9 10 11 12 13 14

Real Friend Moderate Very Strict punishes a lot

- 4. How do you feel about your school work?**

Worry Couldnt
constantly 1 2 3 4 5 6 7 8 9 10 11 12 care less

5. How helpful are you to your class fellows?

Would never Always offer
do a favor 1 2 3 4 5 6 7 8 9 10 help

7. On The Spot Decisions (Strategy No. 7)

This exercise gives practice in making decisions in a short time. It also is a fast way for people to see what others are thinking and their reactions to the questions.

A question will be asked. Think about it carefully. Organize your thoughts so you can state them briefly. Listen as other people are called upon.

Some sample questions :

1. What issues have you recently talked about in public ?
 2. What incident in the news lately has really upset you ?
 3. What issue in your community upsets you ?

Discussion may follow giving people a chance to state their reasons. Any student may pass if he wishes.

8. I Am Proud (Strategy No. 8)

This strategy will help to build self confidence in the student. It also gives the student an idea as to the degree of pride he or she may have in the things he does.

You will be asked a question about your pride in relation to certain aspects of life. Do not compare your answers to other

people's but do try to get new ideas from them. Answer the question with the phrase I am proud... or I am proud that... Try to think of things that you really feel good about. Don't answer with something you think you should be proud of but really aren't.

Some questions to think about :

1. What is something you can do independently that you are proud of ?
 2. What is something in relation to personal wealth that you are proud of ?
 3. What are you proud of in your school ?
 4. What are you proud of concerning gifts you have given ?
 5. What are you proud of that has to do with something you wrote ?
 6. What are you proud of that relates to your family ?
 7. What new learning experience do you feel proud of ?
 8. When were you especially loving to someone and felt proud of it ?
 9. Did you do anything to contribute to your community about which you feel proud ?
 10. Have you done anything to live by your religion about which you feel proud ?
- 9. In The Public Eye (Strategy No. 9)**

This strategy gives a person the chance to state his views in the classroom. It also, inevitably, forces the person to go over what he has said and evaluate his answers.

Someone volunteers to be interviewed and either the teacher or another student is the interviewer. The volunteer is asked several questions about his beliefs, feelings on certain issues. The person may refuse to answer any question but those he chooses to answer must be answered truthfully. The person may end the interview at any time by thanking the audience for the interview. The volunteer, at the end of the interview, may ask the interviewer any of the questions he was asked. The number of questions to the interviewer should be limited so as not to remove the focus from the volunteer.

Some sample interviews :

1. If you had a choice of how old you could be, what age would you like to be ?
2. Do you smoke ? Why ?
3. Do you believe in God ?
4. How do you feel about giving grades in school ?
5. Are engagement rings important to you ?
6. What do you like best/least about your school ?
7. Is there someone in your life whom you admire very much ? Why ?
8. Is there anything you really believe in ?
9. What two things do you want changed in your school ?
10. What is one thing you would like changed about yourself ?

10. Sharing Experiences (Strategy No. 10)

This exercise helps you to get to know each other by interviews. By being in small groups you can relate on a more intimate basis than in a large classroom.

Form groups of four to five people with one person volunteering to be interviewed. This centre person will regulate the interview by calling upon one of the group members to ask a question. The interviewee may pass on any question he does not wish to answer. The centre person can also ask a member of the group his reason for asking his question. The interview is over when the group has run out of questions or when the interviewee says "Thank you for the interview."

Two things to remember while interviewing :

1. People do not always want to talk about their personal feelings; You should respect someone if they make the decision to pass on a question.
2. Try not to have arguments or start debates. These interviews are to help people express their feelings and for others to react to these feelings in a mature way.

If you disagree with someone try to understand their position, don't try to tell him he is wrong.

If the groups are small enough, and time permits, you may want to interview other persons in your group. This exercise is more likely to succeed if everyone has a chance to express their feelings.

11. Learning to Listen (Strategy No. 11)

Trying to form values is made much easier when you are in an encouraging and warm atmosphere. To develop this kind of an atmosphere teachers and students must learn to respect each other's views. Everyone has a right to express their own opinion and until this fact is realized in the class room, people will be afraid to voice their position.

This activity will attempt to help you accept and try to understand different opinions. The purpose of this activity is to aid people in understanding each other's point of view as apposed to trying to change someone's mind.

Everyone completes these two sentences :

1. I like to be with people that.....
2. I don't like to be with people that.....

After you finish this get into groups of three to discuss your answers. Each person in the group is to have the complete attention of the other two for a period of five minutes. During this time the center person talks about what he wrote down.

Things to think about during the discussion :

1. Give the center person your full attention for the entire five minutes or until he is finished. Questions may be asked if they relate to the subject. Don't get off the track !

2. Try to make the person feel comfortable. It is not easy to talk in front of other people. By acknowledging the speakers statements with nods or smiles will make everyone feel more

relaxed. If you disagree with the speaker's statements try not to show it. Negative feelings defeat the purpose of the activity. There will be discussion time later.

3. Try to understand the other person's feelings. Ask a question to clarify a reason for a particular response. Make sure you are not trying to put yourself in the spotlight. Also try not to reveal negative feelings through your questions.

After everyone has had a turn think about how well you listened and understood. Do you have a hard time saying nothing when someone is making a statement you disagree with? Did you feel afraid when you were giving your opinion? Discuss and react to each others positions for another five or ten minutes. Did you feel more or less confident than before? Could you listen as well, knowing that you could say something this time?

12. Examining Alternatives (Strategy No. 12)

How many times have you done something and found yourself regretting it afterwards? May be if you had been more clear about your feelings you could have acted in a more beneficial way. This strategy will give you practice in considering alternatives before deciding what to do in a specific situation. The purpose here is to get you to act more often in accordance with your personal values.

First discuss the things you have done that you regretted later. Now given a situation in which something must be done, decide what alternative is best. Take into consideration all your feelings related to the situation. What would you want to do in this situation? Write down two answers, one you think you *would* probably do and the second what you think you *should* do. Break up into groups of three or four to discuss your answers and try to reach a conclusion.

A sample situation :

You are walking behind someone who throws an empty cigarette package on to the sidewalk. You are about twenty-five feet behind him. What should you do?

13. What Are The Consequences ? (Strategy No. 13)

One part of making decisions is by examining the consequences of an action. This strategy helps strengthen the ability to search for consequences which eventually leads to making better choices.

This exercise can be a follow-up to 12 or by itself. Use a situation from 12 and write the key words at the top of the page. Make a table with three headings. Alternative 1, 2, and 3. Under each heading write down as many consequences as you can. You may work individually or in groups. If you can only think of one alternative for a situation, write down not doing it as your second alternative.

Choosing not to do something will also produce consequences. Discuss your responses with other people and try to come up with new alternatives. Compare your consequences with other people's. Do you find your answers limited? Try to get as many ideas as possible.

14. Discussion With Self (Strategy No. 14)

Have you ever been faced with a problem and argued it out with yourself? Have you ever heard a voice inside your head telling you to change your mind? This strategy will help you to sort things out in your head by having a conversation with yourself. It will also help you realize that with value decisions also comes confusion.

Think of a problem you've been hashing over in your head lately. Write down a dialogue or trialogue of your inner voices, don't write down what you think is right. After you have finished your dialogues someone may volunteer to act theirs out. The volunteer changes from one position to another, as he questions and answers himself until he finishes his script. The person may continue his dialogue as long as he can or until he reaches a decision. This may be done in front of the whole class or in groups of four or five. People may ask questions of either voice of the actor to help him clarify his feelings. Try not to psycho-analyze each other.

15. Slicing The Apple Of Your Life (Strategy No. 15)

How do you spend your time and money? Do you spend it wisely? These things are important for us to know if we want to move from where we are to where we want to be in life. This strategy also makes you examine how you live your life.

Draw a circle on your paper and divide it into four quarters. Each quarter represents six hours of the day. Now try to estimate how much time you spend on each of these things,

- (i) Sleeping
- (ii) School
- (iii) Working at a job
- (iv) With your colleagues
- (v) Homework
- (vi) By yourself, doing something
- (vii) Doing nothing
- (viii) Helping in community services
- (ix) With your family, including at meals
- (x) On other things.

You won't get exact estimates but you should have them add up to 24 hours.

Some questions to think about;

1. Are you happy with the size of your slices?
2. Draw another apple that you think would be perfect for you. Is it very different to the first?
3. Is there anything feasible you can do to change the sizes of your slices?

Try this activity with different pies. School, one subject, the books they read are topics you might try. Look at other people's pies and compare them. Is your pie much different? How? Do not get into arguments but discuss your reasons for dividing up your pie the way you did. Everyone has a right to their own way of life, do not try to change their minds.

16. Make A Wish (Strategy No. 16)

The strategy is to make you think about what you value.

You have a magic box. Inside there can be anything you want tangible or intangible. If you had such a box in front of you right now, what would be in it? Take your time with your answer then write it down.

Is your answer related to money?

Is your answer related to virtue?

Do you think your answer will change next year? month?
week? tomorrow?

What would you want for a friend?

What would you want for a favourite relative?

What would you want for the Prime Minister?

What would you want for the world?

Keep your answers and look at them again next week, see if your values have changed.

17. What Am I? (Strategy No. 17)

This strategy will help you to know yourself better. It will give you a chance to think about your life objectively.

Write a short story in your book once every two or three days.

Use these topics:

- (i) What am I?
- (ii) What do I want to be?
- (iii) I feel proud...
- (iv) My most valuable experience.
- (v) A turning point.
- (vi) If I was president of the world.
- (vii) My best friend.
- (viii) My children.

You may discuss your stories or read them aloud. Show them to your parents and see what happens. Save them and look at them again in a few months. How have you changed?

18. Chapters Of My Life (Strategy No. 18)

This activity will help you to see your life as a whole. It gives you a chance to think of goals past and present and not living the days as they come. It will help you to be more aware of the pattern of your life and how you might change it to suit you better.

During the year you will develop chapters or pages for your life story by remembering events in the past. Try to examine these experiences in order to find important life patterns. Decide which of these patterns were results of conscious choice, outside pressures or of inner impulses. From time to time discuss a page or two with someone. Learn about their experiences and how they feel about them.

Some examples :

1. Who have your favorite teachers been ; not only school teachers but anyone who has taught you a valuable lesson.
2. Draw a line with one end representing birth and the other, your age now. Mark off on the line all the turning points in your life. Put your age underneath each mark, and describe the turning points. How did they happen ? How did you feel before and after ? Did anyone notice the change ? How do you feel about it now ?
3. Write little stories about some of the following learning experiences.

- Learning to ride a bike. Who helped ? Whose bike was it ?
- Learning to dance.
- Learning to play cards.
- Learning to love your brothers and sisters.
- Learning to drive.
- Any other learning experience you have had.

19. Strength Of Beliefs (Strategy No. 19)

This exercise helps you to asses how strongly you believe in something.

Complete the questions on your own by indicating how you feel about the statement. Write C for completely agree

N for not at all

PY for partially yes

PN for partially no

1. Teachers do not get respect from students.
2. Man's nature is basically good.
3. Giving grades is a good way to encourage learning.
4. There is some kind of life after death.
5. Police are too brutal.
6. Women should have equal rights.

Break into groups to discuss your answers. Would you change your answers after listening to other people's reasons ? How confident do you feel about your answers ? Would you rather have stronger or weaker feelings ? About which question ?

20. Values On The Outside (Strategy No. 20)

One of the school's main problems is making the link between the classroom and the outside world. This exercise attempts to make this link by putting the students on the outside. Learning to make value judgements through experience will be a lot more meaningful to a student than ordinary class discussions.

In pairs, pick an experience or project you want to be involved in. These projects will be with people you don't know so there will be some risk involved. You have one week to finish the assignment. At the end of this time everyone will report on what they experienced and discussion will follow. Please inform your teacher of project before carrying it out.

Some sample projects :

1. Go to the local courthouse and observe the cases brought in. How are the people treated ?

2. Put on some old clothes and sit in the unemployment office, Strike up a conversation with someone sitting next to you. Observe your own reactions.

3. Sit in the waiting room of the maternity ward in the hospital. Strike up a conversation with someone else in the room.

4. Find a neighbor or friend who is being abused or neglected by his landlord. Offer to phone City Hall to help him get it fixed.

5. Make up a lesson plan on something you think is important. Contact a local junior high school and get permission to teach a class your lesson.

6. Answer an advertisement for a job offer for a common labourer. Fill out the application and go for the interview if you are called.

21. Picture Of My Life (Strategy No. 21)

This strategy helps students to think about where their life is going. How important is it and how they may want to change it.

Draw the outline of an emblem or coat of arms. Divide it up into six sections. In each section you will draw a picture relating to a question. The art work is not important, what you draw is.

1. What do you think is the most important thing you have done in your life?

2. What do you think is the most important thing your family has done?

3. What is something that someone can do to make you happy?

4. What would you want to succeed in if you only had one year to live?

5. What was your greatest personal failure?

6. What one thing would you like people to say about you if you died today?

After you have finished your emblem, break into discussion groups and compare each other's pictures. Explain your reasons

for your pictures and listen to other people's reasons. Do you think your emblem will change by next year? How would you want it to change? In what direction is your life moving? Are you being molded by others or do you have control of the building of your character? Is your life making a difference?

22. Making Life And Death Decisions (Strategy No. 22)

This will be an exercise in evaluating in people, also trying to decide which values are more important. It also gives insight into how difficult it can be to listen to someone you disagree with.

Break up into groups of four or five. You are high officials of your country. There is about to be a world disaster. Everyone is rushing to bomb-shelters when you get a phone call. It seems there are ten people in a bomb-shelter that can only accomodate six people. They are leaving you to decide who must leave. You do not have much time because you have to get to your own bomb shelter. With the amount of information provided you must make your decision in one half hour.

1. Accountant ; 35 years old
2. His pregnant wife
3. Famous writer ; 45 years old
4. A housewife ; 36 years old
5. Her child, girl ; 11 years old
6. Priest ; 59 years old
7. Policeman
8. Scientific researcher ; chemistry, 41 years old
9. Olympic athlete ; track

After exactly one half hour stop and examine your results. Forget the actual contents of the activity and concentrate on your reactions. Was your group able to reach a decision? How well did you listen to the others? Did you let yourself be talked into something? Were you stubborn? Did you think your answer was right? Are you satisfied with the group decision? Why or Why not?

23. Communication Lines (Strategy No. 23)

So many feelings in our world are lost or wasted because people can't communicate. They are so worried about what they are going to say next that they miss the other person's point. Building values comes from considering alternatives. Considering alternatives comes from listening to other people's point of view. Only by really listening and feeling can we understand completely their opinion. This is not an easy thing, listening with all your attention to someone you disagree with. It helps in the long run, though, when it comes to investigating fully each alternative before making a decision. Also, understanding people better can only make life less complicated.

Break into groups of four with one person being the monitor and the others the discussants. The monitor helps find an issue that the others have different opinions on. As each person makes his statement the next person must repeat the point he made before giving his own view. The monitor's job is to make sure this procedure takes place. Each person must be satisfied his point is understood before someone else speaks. The monitors job may change to someone else during the discussion. The discussion ends when everyone has exhausted their topic. A brief discussion may follow with the whole class : How well did you listen ? Did you feel the meaning in what the other person said ? Were you satisfied as to how much attention you had. Did you feel they understood your point of view ?

SUGGESTED READINGS

- Bruner, Jerome S. *The process of Education* Cambridge, Mass : Harvard Univ. Press, 1961.
- Burrell, Ann Porter, "Facilitatimg learning through emphasis on meeting childrens basic emotional need : An-Inservice program", *Journal of Educational Sociology* 24 : 381-393, March, 1951.
- Combs, Arthur W. and Donald Snygg, Individual Behavior (Revised Edition), New York : Harper and Ron Publishers, 1959
- Hoff, Arthur G. *Secondary School Science Teaching* Philadelphia : The Blakiton Company, 1950
- Navarra, John G., The Development of Scientific concepts in a young child. New York : Teachers College, Columbia University, 1955, pp. 147
- Simon B. Sidney, L.W.. Howe and H. Kirschenbaum, *Values Clarification*, New York : Hart Publishing Company, Inc., 1973.

CHAPTER III

PROCESS USED TO

DEVELOP AND EVALUATE

CURRICULUM MATERIALS

WITH A FOCUS ON VALUES

For many years, there have been demands for a more effective curriculum in high schools. My experience and contacts with teachers and educators in many developing countries leads me to believe that there is a great deal lacking in this regard.

The present curriculum in most high school subjects, emphasizes theoretical knowledge and rote memory. It is dominated by an examination system that stifles innovation and independent thought.

The literature suggests that this curricular approach and emphasis is not as useful as it might be to the majority of the population today.

The introduction of new curricula in various subjects in Western countries have not really touched the problems of developing countries.

It is unlikely that any single curriculum in a subject will meet the needs of all students. While these newer curricula may go a long way toward filling the needs of some students, it appears that something further is needed to meet the needs of other students such as the rural population of developing countries.^{1,2}

What is needed is the development of a model of the process used to develop curriculum materials in various school subjects which are responsive to the needs of the majority of our students. Firstly, I would like to clarify the definition of curriculum.

Traditionally, curriculum in most developing countries is, a collection of syllabi from the Department of Education of the State and text books in a given school or group of schools. As the purpose of education has broadened and as educators have become more aware of educational problems and processes, the concept of curriculum has changed.

The author completely agree with the following definition of curriculum by Edward A. Krug i.e., "All the means employed by the school to provide students with opportunities for desirable learning experiences."³

Thus, in this paper, a model of the process for curriculum development with a Focus on Community Values is proposed (Refer to Schematic Representation II)

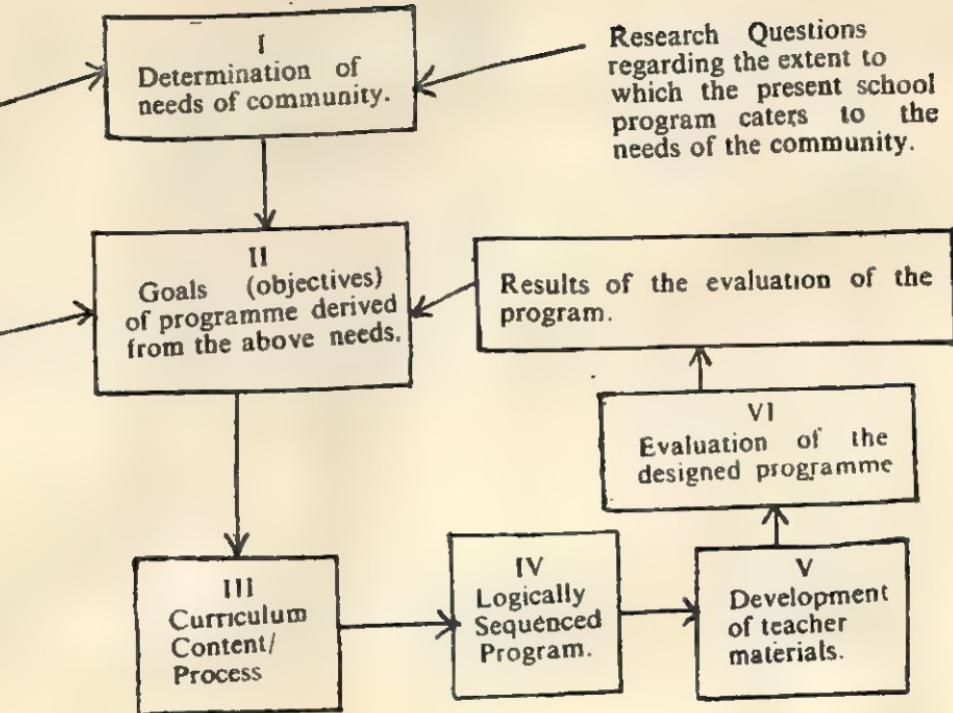
1. R.M. Kalra, "The Chemistry Teacher in a Developing Country," *Journal of Canadian Chemical Education*, October, 1969, p. 3-6.

2. "Looking Ahead in Science Teaching Around the World," *The Science Teacher*, Vol. 34, January' 1967, p. 33.

3. Edward A Kurg, *Administering Curriculum Planning* (New York : Harper and Row Publishers, 1956) p. 4.

Questionnaire may be administered to the students and parents concerning relevancy of the present curriculum relating their daily lives.

Future and present academic needs of students



PROCESS FOR DEVELOPING A COMMUNITY CENTERED PROGRAM

Schematic Representation No. III

The main objective of the proposed program (Refer to Schematic Representation No. II) is to provide a systematic and practical overview of the school program which may be helpful to student behaviour and in their future careers. Other objectives of this program may include; the development of social responsibility, and the attitude and ability to apply what is learned to community situations. This proposed program may relate to some significant aspect of the local environment.

To illustrate the above process, it is imperative to discuss various steps involved in the above Schematic Representation (No, II).

STEP I

Method Used in Determining "Values" of the Students

(a) Research Questions

In order to develop the proposed program based on values, answers to the following questions may be sought.

1. To what extent does the present school program relate to everyday needs of the students ?
2. To what extent does the present curriculum cater to future needs of the students ?

To accomplish this, an evaluation questionnaire may be administered. Response to the evaluation questionnaire may reveal the significant needs of any new program which caters to the needs of the community and which is based on their cultural values.

(b) Personal interviews with members of the local community.

STEP II**(Goals or Objectives of the Program)**

A philosophy of teaching consists of aims and objectives of education in general. In order for an educator to impart meaningful education to students, a background in their "Values" is needed. Thus, the objectives of the proposed activities are derived from the "Values" that the local community accepts. However, other factors (such as community needs, availability of the materials, library, lab tools and knowledge of the basic concepts in various school subjects) are also to be taken into consideration for the development of the proposed program.

STEP III**Content/Process**

The curriculum in the proposed program is thus determined by steps I and II. To satisfy the steps I and II, a totally new system of education is needed. It will enable young students to develop skills and acquire knowledge with a high probability of producing a better understanding of their environment. Such a high school curriculum would not lay emphasis on theoretical and unrelated factual knowledge but rather on the application of that knowledge to everyday life for the improvement of their living conditions. At the same time the curriculum should also have some real intellectual meaning and demand thinking on the part of the able students.

STEP IV**Logically Sequenced Program****(Organization of the Proposed Program)**

Listed below are some of the guiding principles which may be followed in the development of the proposed program.²

1. The curriculum may be organized into units, each of which may be related to some significant aspect of the environment.
2. National Society for the study of Education : Thirty-first year book, Part I, Bloomington (Illinois) : Public School Publishing Co., 1932, p. 209.

2. The unit may be essentially a major problem of everyday life to which education may contribute an intelligent basis for human adjustment.
3. The organization, in part at least, may be in the form of problems or projects to insure education in problem solving.
4. The distribution of time and emphasis to various units may be determined by the functional, social value of the units, their "teachability", and "learnability", the teachers and pupils interest in the unit, the local significance of the unit, and its value to other units of course.
5. The organization of the course shall be such that it will lead to the attainment of immediate and ultimate objectives.²

STEP V

Teacher materials may be developed and distributed to randomly selected teachers in the area.

STEP VI and VII

An evaluation questionnaire for the students and the teachers may be designed regarding the relative strengths and weaknesses of the proposed program, its operation and existing facilities and recommendations for change. A random selection of teachers and students may be made in the schools for in-depth interviews, additions or subtractions may be made in the proposed program according to the responses made by the students and the teachers implementing the program in part or whole.

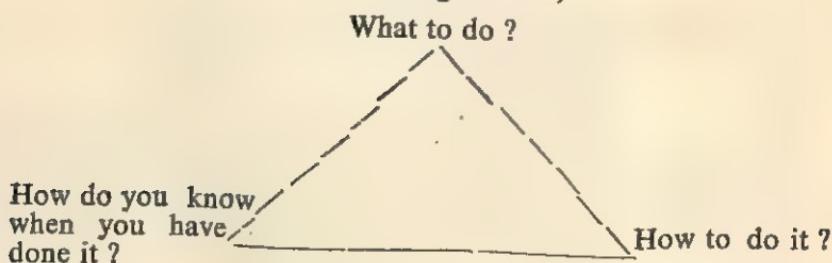
Process Used for Developing a "Unit" of a Program³ (Unit Design Guide)

For the convinience of the teachers, I am proposing the following model (Schematic Representation II) for the development of a unit of any program.

2. National Soiety for the Study of Education : Thirty-first year book, Part I, Bloomington (Illinois : Public School Publishing Co., 1932, p. 209.

3. B. C. Teacher's Federation Professional Development Center, "Curriculum Design Guide", Mission School District Convention March 19, 1975.

(Unit Design Guide)



In order to implement the above Schematic Representation, it is imperative to discuss the following question :

1. What do we want or need to do within a unit ?
 - needs assessment
 - setting of specific objectives
2. How are you going to do it ?
 - student activities
 - teacher involvement
 - financial, material and human resources
3. How will you know when you have done it ?
 - evaluation

Task I—Needs

What area or topic are you going to focus on ?

Write down students needs, community needs, school needs that relates to the area or topic chosen.

Task II—Objectives

Express the need in learning out comes—the student will be able to demonstrate.....(not more than three)

Task III—Unit

<u>Learning Out Come</u>	<u>Student Activities</u>	<u>Teacher Involvement</u>	<u>Resources</u>
			<ul style="list-style-type: none"> —Financial —Human —Material

Task IV—Evaluation

What method will you use to determine whether students have achieved the intended out come(s) ?

**Factors to be Taken Into Consideration for Validating a Program or a Unit
(Proposed Course)**

A. Description and Content

The following questions should be considered as a basis for validating any new or proposed course content.

- Does the content contribute to significant learning ?
- Is the content appropriate in terms of maturity of pupils, objectives, resources and time available ?
- Is the content unique or different from other content presently in the curriculum ?
- Is the content organized in terms of learning theories ?

B. Objectives

The following questions should be considered as a basis for validating the proposed course objectives.

- Are the proposed objectives in harmony with those of the curriculum ?
- Are the objectives legitimate concerns of a public school system ?

- Can the "needs" which the objectives are designed to meet and the problems which they are designed to overcome be substantiated in specific terms ?

C. Methodology and Approach

The following questions should be considered as a basis for validating the proposed methodology.

- Are a variety of learning experiences provided ?
- Are there provisions for dealing with individual learning needs ?

D. Texts, References, Materials

- Are there enough text books or reference materials available in the library ?

E. General Evaluation

The following questions may be considered for validating the proposed system of evaluation.

- Does the system of evaluation reflect the objectives of the course ?
- Is the system of evaluation in harmony with the school's general philosophy and objectives ?
- Does the system of evaluation facilitate learning and teaching ?
- Does the system of evaluation assist the student in self-evaluation ?
- Does the system of evaluation produce information which is appropriate for reporting and recording ?

Most of the above factors are taken from the Department of Education, Victoria Criteria list for locally developed courses.

SUGGESTED READINGS

Alberty, Harold, *Reorganizing the High School Curriculum*, New York ; The Macmillan Company, 1947.

Dahl Robert A. *Who Governs* New Haven : Yale University, 1961

Doll Ronald C. *Curriculum Improvement-Decision Making Process*, Boston : Allyn and Bacon Inc., 1964.

Everette, Samuel, (ed), *The Community School*, New York : Appleton-Century Crafts, Inc., 1938.

Gwynn, Minor J. *Curriculum Principles and Social Trends* New York : G. P. Putnam and Sons., 1945.

Hunter, Floyd *Community Power Structure* Chapel Hill : University of North Carolina Press, 1953.

Krug Edward A., *Curriculum Planning*, (rev. ed) New York : Harper and Row Publishers, 1957.

CHAPTER IV

RESEARCH IN EDUCATION

BASED ON VALUES FOR

DEVELOPING COUNTRIES

(Value Research)

What can today's research in education contribute to developing countries ? To what extent are the results of present research in education useful to today's teachers in their classrooms? Answers to these questions depend in part upon the nature of the research, being conducted in education in developing countries. It is my belief that recent educational research in most developing countries has not contributed enough toward making useful changes in the schools to meet the needs of their countries ! Not enough teachers themselves are involved in the process of research. It is my opinion that without personal involvement in research conducted in the classrooms, change cannot be initiated in developing nations. And it is a fact that the teachers of developing countries do not believe that they have the authority to conduct this personal type of research that can lead to useful changes in what is taught.

In most developing countries, teachers usually must follow the required syllabus prescribed by the Department of Education ; giving the teachers limited opportunity to experiment and to try innovative ideas. The system of almost totally centralized decision making may prevent teachers from providing the most useful educational opportunities for children. Teachers must be free and must be made more individually responsible for providing the scope and quality of educational service that the people of each developing nation's community value.

If we want to impart meaningful education to our children and youth ; to help them better meet a variety of needs caused by the changing societies, teachers themselves must be responsible for more of the educational research, the results of which can drastically affect their classroom teaching. But as of now, diverse well intended groups comprised of university scholars and other professional people have assumed most of the responsibility for the development of research in education. And while it is gratifying to see these groups have wide spread interests and

concerns for educational research ; I believe that the system as it now operates leaves little opportunity for individual teachers to become involved in and to profit from what I will call "VALUE RESEARCH". "Value" research must become the responsibility, of each and every school teacher !

Teacher's in developing nations must be encouraged to make many of their own decisions, based upon the findings of their "Value" research, about methods of instruction and about content to be taught. Decision making based upon data collected through "Value Research" is the responsibility of all teachers who wish to act as professionals. The educational system in developing countries must be revised to encourage teachers to fulfill their role as professional educators. Also, they should be encouraged to plan and organize, work with colleagues, and devise new methods of instruction.

If teachers are to profit from their own research activities they must become familiar with the techniques used in Value research. They must recognize the significance of their research.

Definition of Value Research

The activities of a teacher involved in defining and finding "Values" of his students is called "Values" research in education. Value research in education can also be considered as the testing by teachers of ideas, processes or materials in their class rooms. In this book, action research concerned with individual and community values is called "VALUE RESEARCH".

Value Research is an organized evaluation conducted by various individual teachers confronting problems in their own work. These individuals study their own methods and practices and attempt to find solutions to their unresolved professional problems, with the objective of improving their performance on the job. Value Research is a most potent means of improving education practice because it permits greater flexibility in planning than is possible in an overly controlled research experiment.

Difference Between Value Research and More Traditional Research

The major difference between more traditional research and value research lies mainly in who does the research and the place where the research is conducted. In the field of education teachers, principals, and curriculum workers are those who do value research. The ideal place for conducting or testing an educational value, idea, or process is at the place where teachers are in a position to test the validity and applicability of learning principles and theories is the classroom. Here the teachers get to know best their values and those of their pupils. Value research systematically examines and evaluates the work of individuals who are engaged in the process of helping children to learn.

Traditional research in education is usually the responsibility of specialists related to a University or to departments of instruction. This research is often conducted away from the schoolroom, perhaps in the researchers office. Traditional research be more closely related to what happens in the classroom if it is to meet with an increasing degree of success.

Implication of Value Research in Curriculum Change

A major concern of value research is to find practical solutions to the problems which the students face in their daily life environments. In many emerging countries the majority of the population live in villages. These villages have continual problems related to sanitation and the maintenance of an adequate water supply. Also, there are huge problems related to personal health and hygiene. These problems imply the designing of a curriculum that must be closely relate to the real problems of rural life, presented in a way to bridge the gap between school knowledge and life situations. A curriculum built around the practical problems of rural life will bring the school out of its isolation and connect it to the worthy aspects of community life. To be successful, it would seem that the school curriculum must involve the utilization in school of the child's outside experiences. School experiences should be on, and integrated with the knowledge, information, and interests children bring with them to school.

Teachers can work with students to determine the curriculum revolving around community values. Teachers, especially in rural areas can do much to better rural life through useful classroom activity. Through trying to relate school experiences to daily problems teachers will establish their own position and prestige in the community as well.

Criticism of Value Research

One often hears that teachers in developing countries are not competent to do value research for they lack knowledge of basic techniques. Moreover, they do not have the time, for their days are full of activities. Perhaps a lack of funds would also impair their participation in any kind of research. There is some truth to these claims for teachers all over the world. But value research does not necessarily require any sophisticated knowledge or special funds. It does not require much time outside of the normal teaching schedule. Value research as earlier defined is the "finding of solutions to problems" by educators in their classes. Teachers in effect can be value research oriented on the job. In fact, some value research does occur continually as teachers consciously make decisions based upon experiences. These decisions affect what and how the children learn in the classroom from day to day. This is value research at its most elementary level. More emphasis needs to be placed upon value research in teaching.

Getting Value Research Started

Following are some practical suggestions to the teachers in India for conducting value research in their own classrooms :
Problem Definition

The first step in conducting value research is to define a problem that a teacher is having in his classroom. Problems to be subject to value research need to come from practical situations. Suppose there are students who do not like science or mathematics. These students are very much interested in other subjects. Thus the teacher thinks that there is something wrong, i.e., each student does not like the subject or the environment. The problem here stated is.....to conduct value research, the problem must be defined clearly. Only if the teacher is clear about the problem will he be successful in this research.

Dealing with the Problem

Once the problem is stated clearly it becomes necessary to obtain the best evidence to prove that the new methods or materials or strategies developed actually results in the anticipated goals. For example. Referring back to the example of the unmotivated students, some motivational strategies like frequent reinforcement techniques may help the students to take more interest in the class. Once some evidence is developed, it must be interpreted. The final step in the value research is to interpret the evidence collected to evaluate the modifications made and also to find out about the future applicability of learning derived from the research.

Improving Teaching Through Value Research

To aid the teacher in getting started in improving teaching through value research the following problems for study are suggested. These sample problems have been adapted from the material "Issues Related to Philosophy Objectives" distributed by the U.S. Office of Education Washington, D.C.

Problem I : What changes need to be made in the content of the courses you teach in order to better meet the needs of the community in which your students live ?

To deal with this problem the following questions, for example, might be considered.

- (a) Are changes in the curriculum truly needed ?
- (b) If so. what types of changes are needed ?
- (c) To, what extent should school instruction be organized and taught to meet the objectives of basic education, as applied education or as a means of solving community and personal problems (practical education) ?
- (d) What kind of educational experiences will prepare students to deal most effectively with personal and with community problems ?
- (e) Can I (the teacher) utilize traditional subject content to some extent, applying it to the solution of community problems ?

Problem II : What level of literacy is needed for intelligent, responsible citizenship in free India ?

To deal with this problem the following questions might be considered.

- (a) What factors govern the literacy of the people ?
- (b) What valid criteria or measures can be applied to determine the literacy of the people ?
- (c) What level of literacy presently exist in the community and the country ?
- (d) Are there minimum essentials of knowledge (like social studies, science, mathematics, civics, et al), understanding skills appreciations, that are considered necessary by a representative cross section of leaders, scientists, and educators, for intelligent responsible citizenship in Indian society today ?

Problem III : What should be the role of textbooks in instruction ? Is there a role for auxilliary materials of instruction ?

To deal with this problem the following questions might be considered.

- (a) What are the present practices in the use of textbooks in each academic subject ?
- (b) Do the content of various textbooks meet needs of students at each grade level ?
- (c) Do the text books being used contain information directly related to solving the problems of villagers ?

Problem IV : Should supervised study or homework be used to compliment regular class instruction ?

To deal with this problem the following questions might be considered.

- (a) What are the relative merits of supervised study and of homework in each subject at each grade level ?
- (b) What specific types of homework are most effective in promoting understanding at each grade level ?

Problem V : What considerations and criteria should be used in grouping pupils for instruction in each subject at each level ?

To deal with this problem the following questions might be considered.

- (a) What are advantages and disadvantages of the various methods of grouping pupils for instruction such as tracks, and ability grouping within the classes ?
- (b) Is instruction more effective when students are grouped homogeneously or when they are grouped heterogeneously ?
- (c) How far down into the elementary school should homogeneous grouping of classes extend ?
- (d) What combinations of test scores and other evaluative criteria can be used as a basis for grouping students for different subjects ?

Conclusion

In value research no matter what problems are chosen for study the most important contribution of the teacher must be the ability to interpret data, to invent his own study units and make them come to life by adapting to opportunities as they arise in his classroom, and to adapt his lessons to fit the needs of the environment around him.

While the advancement of education must continue to depend on research specialists, it is value research which will make education more meaningful and practical to more of the population. Therefore an all-out effort must be made in developing countries to encourage all teachers to experiment, to devise new ideas for their classroom and to test their ideas. This is value research in action.



SUGGESTED READINGS

Alexander, W. M., "Co-operative Action For Curriculum Improvement". *Educational Leadership* Vol. 16, pp. 268-270, Feb. 1959.

Kalra, R.M. and F.X. Sutman, "Action Research in Education in India" *Quarterly Review*. April, 1973.

Kenworthy, L.S., "Education for the community of 1985", *Educational Leadership*, Vol. 17, pp. 470-474, May, 1960.

Raths, Louis E, et al, Teaching for thinking, theory and Application, Columbus : (Ohio) Merril Publishers, 1967.

Taba, Hilda. *Curriculum Development : Theory and Practice*. New York : Harcourt, Brace and World, Inc. 1962.

Taba, Hilda and Elizabeth Noel, *Action Research : A case Study*, Washington (D.C.) : Association For Supervision and Curriculum Development, 1957.

Taba Hilda and Jack Maish, "Action Research as a Technique of Supervision" *Educational Leadership* 12 : pp. 453-458, May, 1955.

CHAPTER V

RECOMMENDATIONS FOR

IMPLEMENTING THE

CONCEPT OF VALUES

AS A BASES FOR

CURRICULUM DEVELOPMENT

In order to implement the proposed model ; I believe that improvements in various aspects of education are needed. Curriculum is not just a collection of syllabi from the Department of education. The concept of curriculum also includes professional environment, instruction, and evaluation which have been discussed earlier.

However, the following aspects of education need serious consideration.

- (1) Education of Teachers
- (2) Relevance in the Curriculum
- (3) Professional Environment
- (4) Curriculum Decentralization.

(1). Education of Teachers

It is quite evident that the nature of the model (Values as a Basis for Curriculum Development) will place more responsibility on the individual teacher. This has some very important ramifications for both in-service and pre-service teacher education.

(a) More careful evaluation of prospective teachers should be done, and this evaluation should be continued throughout their pre-professional and internship years. Tests should be given in order to evaluate the practical knowledge of every day life situations which is one of the major guide lines of the model.

(b) Teacher training institutes should provide specialized knowledge and specific skills concerning the scope and sequence of pupil growth and development.

(c) A teacher must be aware of the full range of human knowledge with indepth knowledge of at least one discipline.

(d) A teacher must understand the implicit relationship between community, society and the public school system.

(e) Educational stress should be put on techniques of teaching pupils to think to develop fresh meanings, to critically examine possibilities, and to create new combinations from original or available data.

Relevance in the Curriculum

In order to discuss the relevance of the curriculum it is quite imperative to define this term.

What is Relevance ?

Can it be that it is concerned with the human quest-Man in search of himself ?

This search for self begins when the individual starts asking the following questions :

Whom am I ? What am I doing here ? What is my aim in life ? How do I achieve my aim ? What are my strengths and weaknesses ? What is my role within this community ? What is my role within our country ?

For educators, relevance is the connection between mans quest and the schools effort on his behalf. A successful search for answers will occur only when learners join more fully in the life of society at an earlier age.

In my opinion, we need a fundamental shift in view point, from seeing the school as a place where an individuals behavior is fitted to predetermined roles, to the view that we should help the learner to acquire the knowledge, certain skills, attitudes which may help him to influence his environments so as to achieve this purposes. The classroom of the future must become an entrance into the world, not an escape from it. Instead of education being a laboratory in which people learn how to work and play, work and play become a laboratory for education.

Most students have little idea of the kinds of work that will be doing when they are adults.

Let us begin career discussions and orientation earlier.

Every one needs the opportunity to learn employability skills, responsibility, co-operation, taking instruction, being on time, remaining on the job. Community visits, field trips, business tours, visits with artisans, recreational study, nature study, outdoor activities, cultural excursions are all vital. Exchange visits between towns, urban and rural, province to province are quite helpful.

The affluent should exchange with the poor, children of park-land with those of pavement.

Teaching for leisure, an ever increasing need, is best done through activities rather than passivities. One must learn to be a discriminate and prudent participant and consumer.¹

In the light of the preceding statements it might be worthwhile, if every educator could suggest how this approach to curriculum might be translated into practical realities for the students in his particular subject.

(3) Professional Environment

In order to implement the curriculum based on values, it is quite imperative to attract students with superior backgrounds, and in the long run to improve the quality of teaching to the students benefit, teaching conditions should be improved.

To accomplish the above objective, the following suggestions may be helpful.

(1) Salary schedules should be sufficiently high to attract competent teachers. Extra increments should be given to the teachers who are willing to work in rural areas.

(2) Teachers should be given time to fulfil their role as professional educators.

1. Some of the above views were expressed by Dr. W. H. Worth, Deputy Minister of Advanced Education, Alberta in the Twenty First Annual Conference, Ontario Association For Curriculum Development, Nov. 1972.

Time to discuss the philosophy of the school.

Time to work with colleagues.

Time to work with community people.

Time to plan career development.

Time to think, plan and organize.

(3) Frequent professional meetings should be arranged to exchange modern developments in their particular subjects and in education.

(4) An effort should be made to provide adequate resource center facilities in each elementary and secondary school.

(5) Teachers should be given an increasing degree of responsibility for planning, and organizing their learning activities.

(6) Teachers should be given opportunities to develop the skills of self evaluation.

(7) The professional environment in each school should foster the development of a positive self-concept for each teacher.

(8) The professional environment should encourage the active involvement of teachers in decision making processes.

Curriculum Decentralization

In a recent survey of teaching conditions in most of the developing countries, I observed the following crucial educational issues which come to the fore.

What is today's student in our educational system supposed to learn ?

What are they actually learning ?

What does the study of school subjects contribute to students' educational developments besides facts, concepts and generalization ?

Any skills ? Any values ?

The answers to the above questions depend upon the existing curriculum in emerging countries.

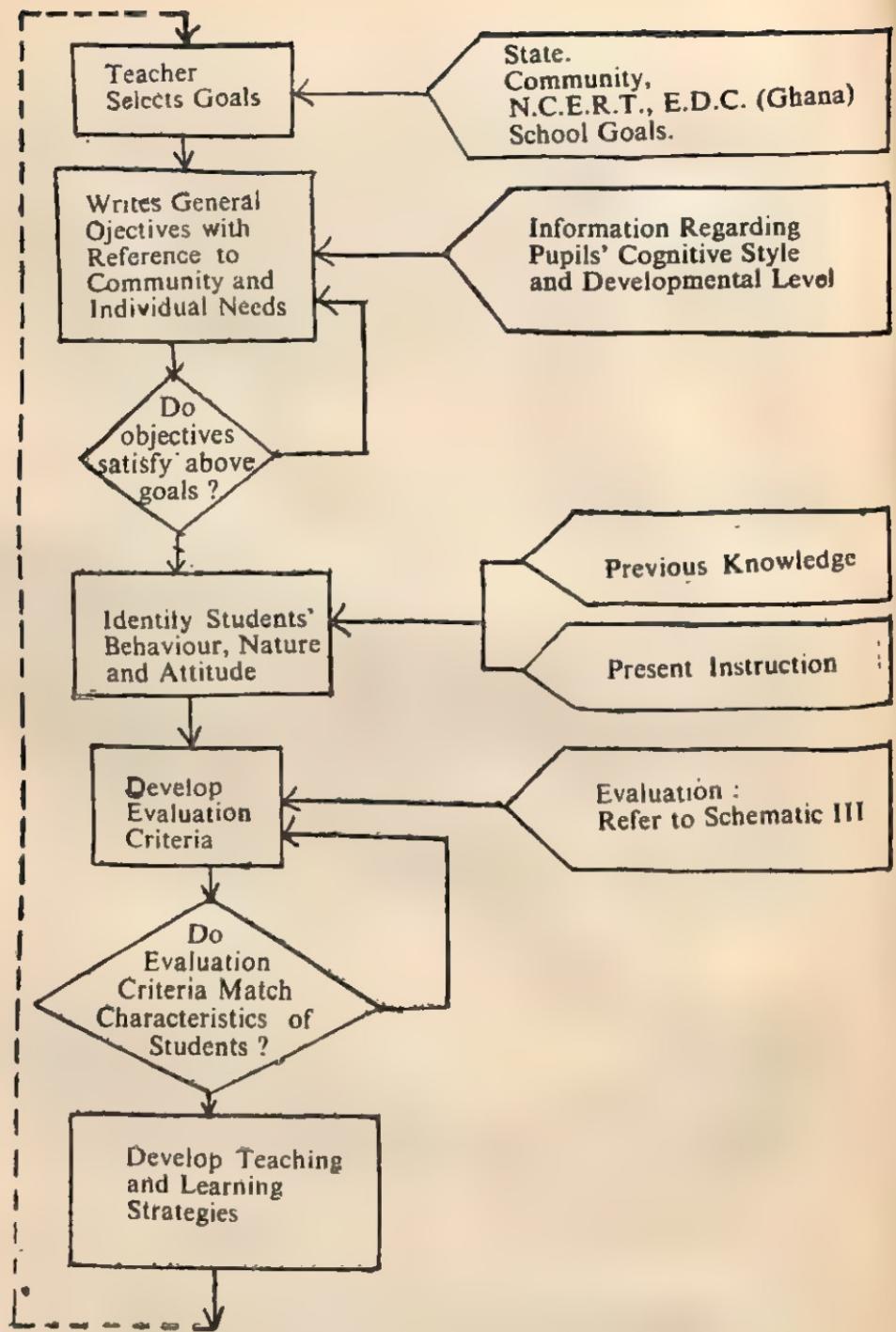
In the present educational system of most developing countries, curriculum is a government responsibility. A few diversified groups in most of the above countries like the National Council of Educational Research and Training (N. C. E. R. T.) in India, Educational Development Center (EDC) in Ghana, Comparative Education Study and Adaptation Centre (CESAC) in Nigeria, Seamec-Regional Centre for Education in Science and Mathematics (RECSAM) in Malaysia, most of them well organized and well financed, have assumed a measure of responsibility for development of curriculum at the elementary and secondary level.

The basic research scientists, social scientists, scholars and university professors each operating from a different point of view, can, through a joint effort, establish clear cut aims and objectives for an improved high school program in developing countries. In my opinion, the task of translation of strong, but general, guidelines into curriculum developments is not one primarily for research scientists or university professors.

To overcome the problems inherent in crucial educational issues in most developing countries, it is quite imperative to develop a system of education that will help young students to develop skills and acquire knowledge which will produce a better way of life for them and which will make it possible to lead the students to the discovery skills so necessary if they are to use their knowledge.

In order to achieve the above aim, programme development should be partly a responsibility of the teachers at all levels-state, district and classrooms. Although teachers in most developing countries want and need all the help and advice they can get from their respective educational agencies, the ultimate responsibility should be theirs. This cannot happen if the present system of curriculum continues to dominate the teaching.

Schematic Representation No. I summarizes the role which the teacher should play in the development of curriculum. Note that in the schematic diagram, the operator in the series of steps described is the teacher, with assistance coming from educational agencies, and community and other sources.



SCHEMATIC REPRESENTATION 1

The process direction in Schematic I moves from the general goal structure, based upon inputs from all levels, towards specific, short-increment teaching strategies. The process takes into account all available information regarding the students, individually and collectively. The process can recycle at any point; i.e., information resulting from evalution attempts can become an input into recasting the evaluative criteria. Most important of all, in this process the teacher is the only agent close enough to the active level to maintain the close tie between the development of goals and objectives, the development of an appropriate curriculum development system, and the development of specific teaching strategies required if the process is to work optimally.

No intent to minimize the role of external agencies is involved; rather the intent is to make more effective the translation of all inputs, both external and internal, into realistic teaching strategies and evaluative devices. Evaluation methods should be determined by the goal structure and should reflect and at the same time influence the teaching process. In the absence of this relationship evaluation becomes the goal, de facto, and teaching follows the path of least resistance.

To promote the performance goals, the process of selecting content areas and developing evaluative criteria and teaching strategies consonant with the goals should involve the identification with in each area of those skills, both intellectual and manipulative, that are associated with successful performance.

If the previous suggestion that is the teacher's responsibility to determine the students level of development is accepted, it follows that for each block of work (topic, chapter, unit, etc.) the appropriate skills, behaviours and even attitudes should be identified to become part of the students evaluation for that block of work.

The above schematic representation (No. I) is based on the following three premises.²

PREMISE I

THE PROCESS OF EDUCATION

THE PROCESS OF LEARNING HOW TO MAKE DECISIONS AND OF LEARNING HOW TO LIVE WITH THE CONSEQUENCES OF THOSE DECISIONS

THE INTELLECTUAL PROCESSES WHICH ARE INVOLVED IN DECISION MAKING

- RECALLING →
- OBSERVING →
- COMPARING AND CONTRASTING →
- DEFINING →
- CLASSIFYING →
- INTERPRETING →
- GENERALIZING →
- INFERRING →
- PREDICTING →
- HYPOTHESIZING →
- ANALYZING →
- SYNTHEZISING →
- EVALUATING →

THE PROCESS OF DECISION MAKING

- PROBLEM CLEARLY DEFINED
- ALTERNATIVES STATED WITH ADVANTAGES AND DISADVANTAGES OF EACH.

THOSE INVOLVED

- PUPILS
- TEACHERS
- PUPILS AND TEACHERS

EACH BRINGS A DIFFERENT QUALITY AND AMOUNT OF EXPERTISE TO THE PROCESS

THE RESULTS

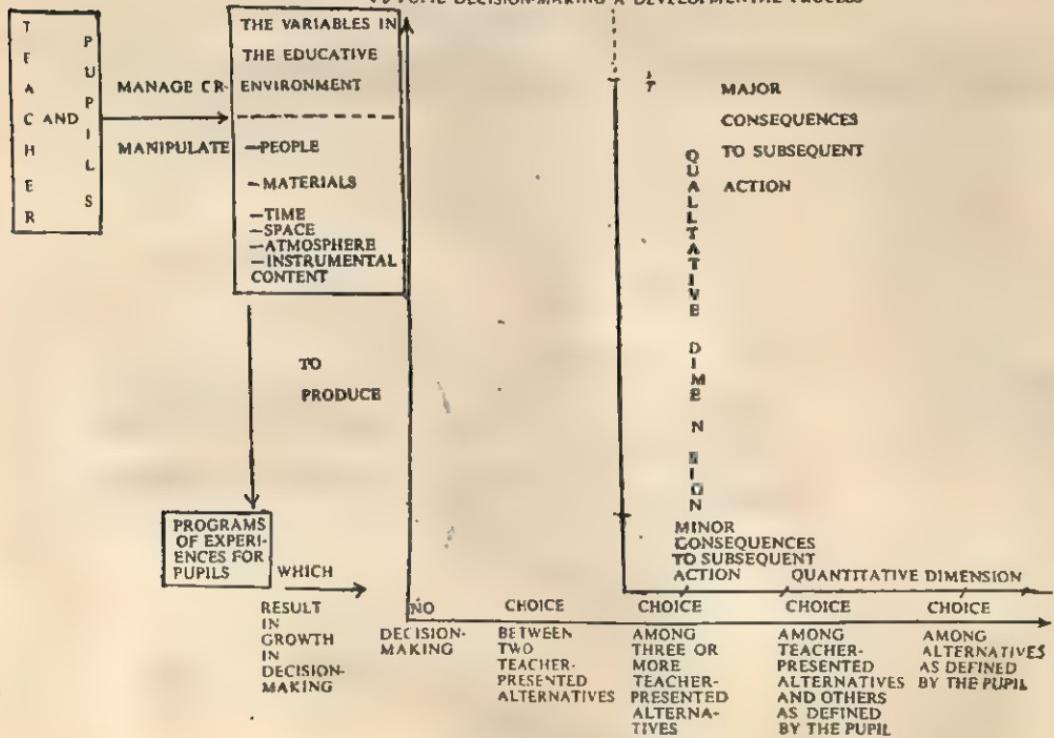
THE RESULTS OF THE DECISION

-A DECISION IS REACHED - HOPEFULLY COLLEGIALLY OR BY CONSENSUS.

PREMISE 2—Pupil decision making is a developmental process and is substantiated in the following schematic representation No. III

PUPIL DECISION-MAKING—A DEVELOPMENTAL PROCESS

TO PUPIL DECISION-MAKING A DEVELOPMENTAL PROCESS



SCHEMATIC REPRESENTATION NO. III

The above decision making process could be plotted on the above diagram as proceeding somewhat diagonally upward and to the right from the point of origin. Teachers can design the learning environment to satisfy the needs of the students so that the decision making process will be growth experience without any fear or threat.



IN ORDER
TO
PROMOTE



TEACHER GROWTH AND DEVELOPMENT IN DECISION MAKING

Premise I

The process of education itself is a process of learning how to make decisions and of learning how to live with the consequences of those decisions. This is exemplified in the following Schematic representation (No. II).

Premise 3—If pupil growth and development in decision making is to be encouraged, then this should result in teacher growth and development in decision making at the same time. Both are complimentary to each other.

The above premises suggest that the teachers should be involved in decision making processes in their educational systems. Those educators in some developing countries who believe that curriculum development is a government responsibility insist that schools do not need to repeat all steps of innovations, nor are they equipped to do so.

I agree with the above views of the educators. But I believe, an opportunity should be provided to those teachers who wish to get involved in a curriculum decision making process. Thus the above conviction may categorize the teachers in the following manner :

Category I

Teachers who wish to involve in curriculum decision processes. (Decentralization of curriculum)

Category II

Teachers who wish to continue to use the Departments' curriculum.

It is also my conviction that complete decentralization of curriculum may probably bring an educational chaos in some developing countries. Further-more, and advisory committee comprising of, retired teachers, University professors and scholars may be established in order to determine the effectiveness of the locally developed curriculum ; i. e., by the teacher. The purpose of this committee should be to provide professional assistance, recognition and constructive criticism to the teachers who wish to involve in curriculum development process. In order to develop

a curriculum based on values, it is quite imperative to decentralize the curriculum.

Conclusion

If the problem of curriculum development is placed in the hands of qualified, experienced, and creative personnel, with reduced constraint by the external agencies the resulting imaginative programme would provide a forward looking approach to the educational system in most developing countries.

Conclusion

In the opinion of this author, a new system of education is needed in most developing countries that will help young students to develop skills and acquire knowledge which will produce a better way of life for them and which will make it possible to lead the students to the discovery skills so necessary if they are to use their knowledge. Thus, the primary aim of education should be to serve the future, i.e., to provide the students with knowledge as a fuel.

In order to achieve the above objective, it may be quite helpful to implement the curriculum based on values.

However, it is my conviction that no matter what is put in print to insure that a given curriculum will be executed in such a way as to de-emphasize straight memorization and emphasize understanding in the content of real problems and values clarification, if the teacher does not sympathize with this approach or understand it, the course will be no better or worse than the existing curriculum. The most important contribution of the teacher must always be his ability to make interpretation, innovations, invent his own study units and make them come to life by adapting to opportunities in his classroom and living environment. He must be inventive in demonstrating examples of an idea from the resources at hand in specific situations.

To conclude ; let us think, organize and strive together, so that students in developing countries may make some valuable contribution to our technical world.

SUGGESTED REFERENCES

Bader, E. et al : The Changing Curriculum, New York : Appleton-Century Crafts, Inc, 1937.

Bailey, Stephen K., Teachers Centers : A British First, *Phi Delta Kappa*, Novembar, 1971.

Bobbitt, Franklin, *How to make a curriculum*, Boston : Horigh-ton Mifflin Company, 1924. Commision on Teacher Education. Helping Teacher understand children. Washington (D.C.) : American council on Education, 1945.

Lane, Howard and Mary Beau Champ, *Human Relations in Teaching : The Dynamics of Helping Children Grow*. Englewold Cliffs, N.J. : Prentice Hall, Inc. 1955.

Leese, Joseph, etal, The Teacher in Curriculum Making, New York : Harper and Row Publishers, 1961.

Teacher Centers : An outline of current Information, ERIC. Vol. XXIII, No. 3, Fall, 1972.

